

Name:

Solutions

THE 4.1-4.4 QUIZ IS ON MONDAY, APRIL 25

1. Evaluate  $\sin C = \frac{6}{10} = \frac{3}{5}$

2. Evaluate  $\cos T = \frac{6}{10} = \frac{3}{5}$

3. Evaluate  $\tan C = \frac{6}{8} = \frac{3}{4}$

4. Evaluate  $\csc T = \frac{10}{6} = \frac{5}{3}$

5. Evaluate  $\sec C = \frac{10}{8} = \frac{5}{4}$

6. Evaluate  $\cot T = \frac{6}{8} = \frac{3}{4}$

7. Complete the statement (fill in the blank):  $\sin 40^\circ = \cos 50^\circ$

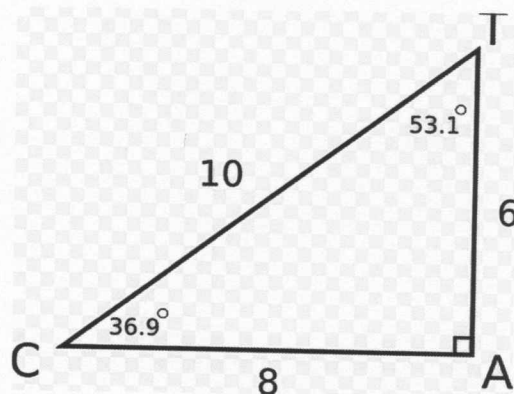
8. True or False:  $\cos \theta = \sin(90 - \theta)$  True

9. Convert  $30^\circ$  to an angle measure in radians.  $\frac{\pi}{6}$

10. Convert  $\frac{\pi}{4}$  to an angle measure in degrees.  $45^\circ$

11. Convert  $60^\circ$  to an angle measure in radians.  $\frac{\pi}{3}$

12. Convert  $\frac{4\pi}{3}$  to an angle measure in degrees.  $240^\circ$



13. Convert  $270^\circ$  to an angle measure in radians.  $\frac{3\pi}{2}$

14. Convert  $\frac{11\pi}{6}$  to an angle measure in degrees.  $330^\circ$

15. Convert  $135^\circ$  to an angle measure in radians.  $\frac{3\pi}{4}$

16. Convert  $\pi$  to an angle measure in degrees.  $180^\circ$

17. Convert  $120^\circ$  to an angle measure in radians.  $\frac{2\pi}{3}$

18. Convert  $\frac{5\pi}{3}$  to an angle measure in degrees.  $300^\circ$

19. Convert  $150^\circ$  to an angle measure in radians.  $\frac{5\pi}{6}$

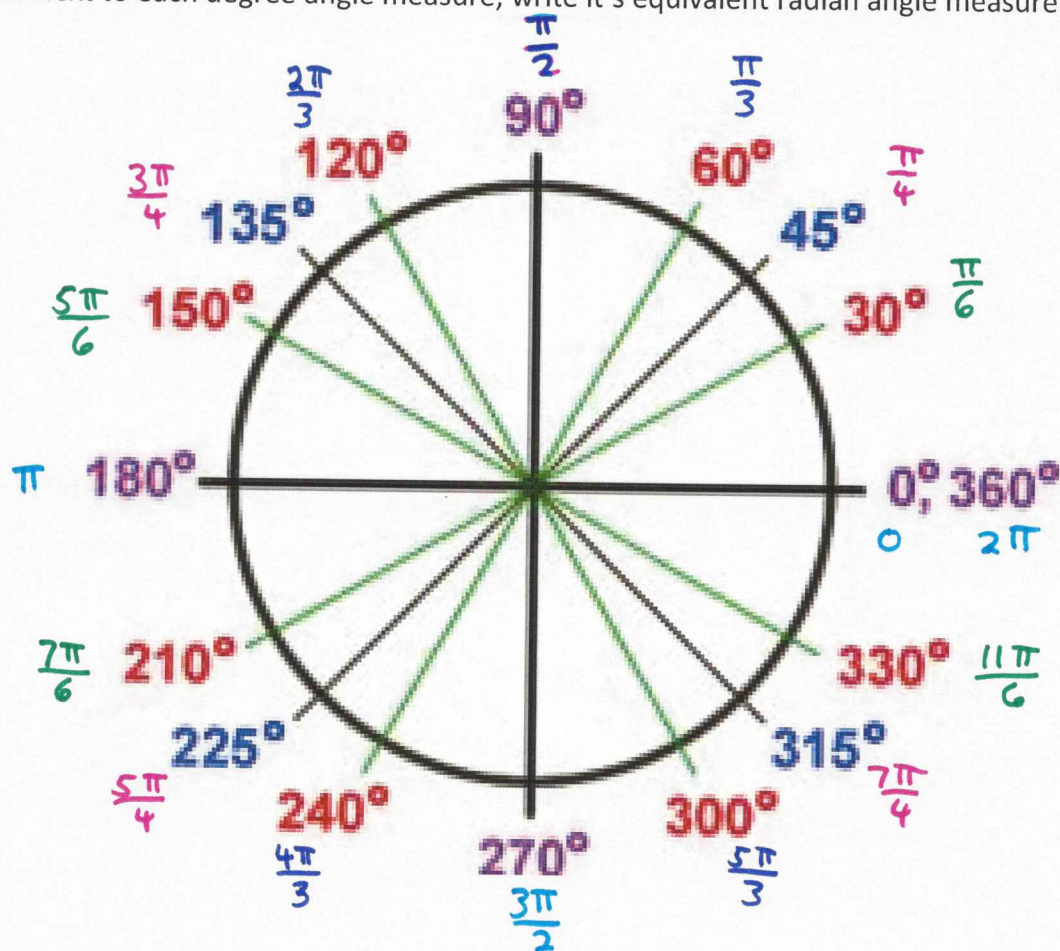
20. Convert  $\frac{7\pi}{4}$  to an angle measure in degrees.  $315^\circ$

21. Convert  $210^\circ$  to an angle measure in radians.  $\frac{7\pi}{6}$

22. Convert  $\frac{\pi}{2}$  to an angle measure in degrees.  $90^\circ$

23. Convert  $225^\circ$  to an angle measure in radians.  $\frac{5\pi}{4}$

24. Next to each degree angle measure, write its equivalent radian angle measure:



25. Write  $\sin 225^\circ$  in terms of a reference angle

$$\sin 225^\circ = -\sin 45^\circ$$

26. Write  $\cos \frac{2\pi}{3}$  in terms of a reference angle

$$\cos \frac{2\pi}{3} = -\cos \frac{\pi}{3}$$

27. Write  $\tan 300^\circ$  in terms of a reference angle

$$\tan 300^\circ = -\tan 60^\circ$$

28. Write  $\sin \frac{11\pi}{6}$  in terms of a reference angle

$$\sin \frac{11\pi}{6} = -\sin \frac{\pi}{6}$$

29. Write  $\cos 150^\circ$  in terms of a reference angle

$$\cos 150^\circ = -\cos 30^\circ$$

30. Write  $\tan \frac{4\pi}{3}$  in terms of a reference angle

$$\tan \frac{4\pi}{3} = \tan \frac{\pi}{3}$$

31. Write  $\sin \frac{9\pi}{4}$  in terms of a reference angle

skip

32. Write  $\cos \frac{3\pi}{2}$  in terms of a reference angle

skip

33. Write  $\tan 135^\circ$  in terms of a reference angle

$$\tan 135^\circ = -\tan 45^\circ$$

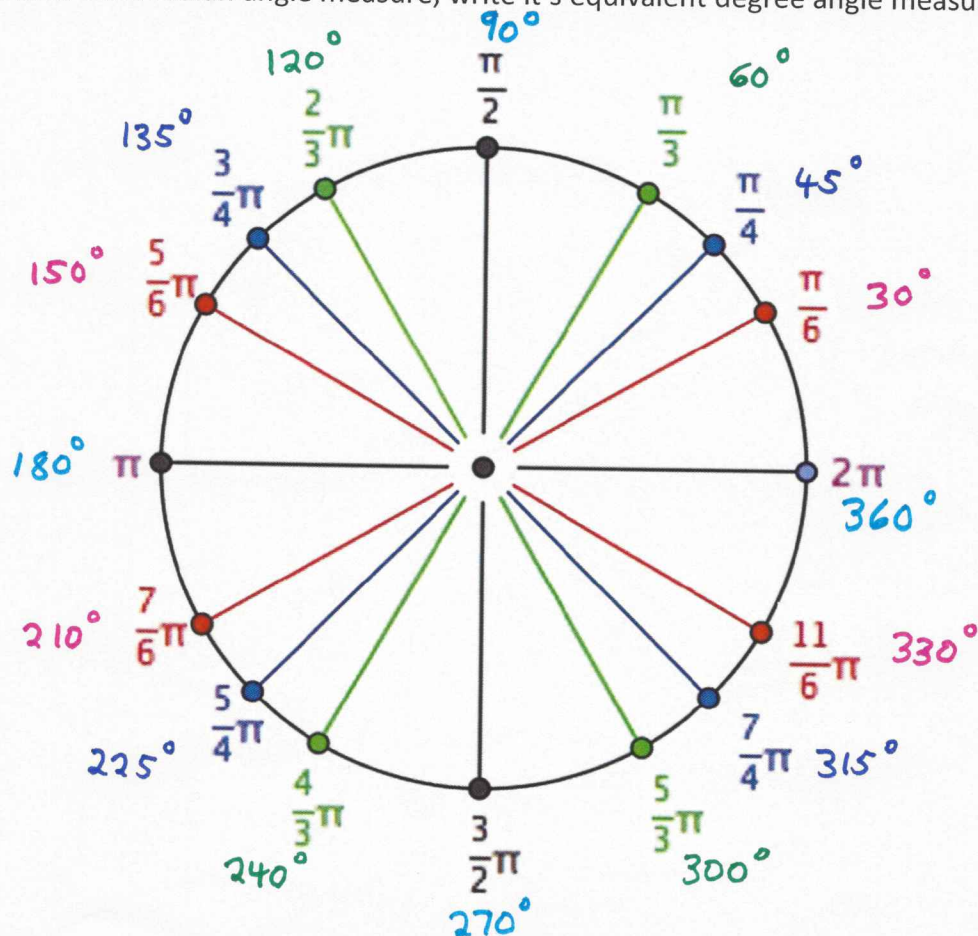
34. Write  $\sin 0^\circ$  in terms of a reference angle

skip

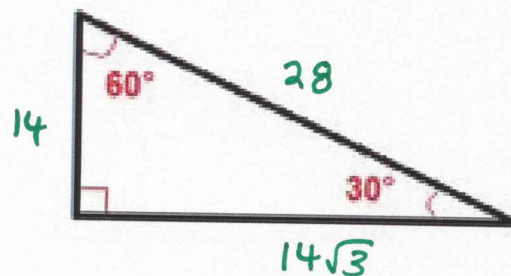
35. Write  $\tan \frac{7\pi}{4}$  in terms of a reference angle

$$\tan \frac{7\pi}{4} = -\tan \frac{\pi}{4}$$

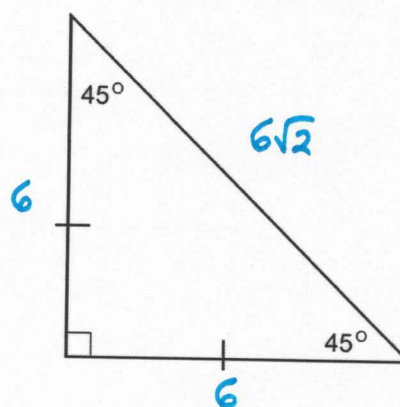
36. Next to each radian angle measure, write its equivalent degree angle measure:



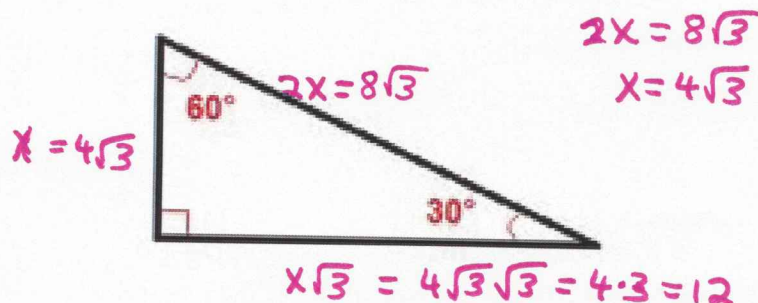
37. Given the special triangle below with  $14\sqrt{3}$  as its longest leg length, find the lengths of the other two sides.



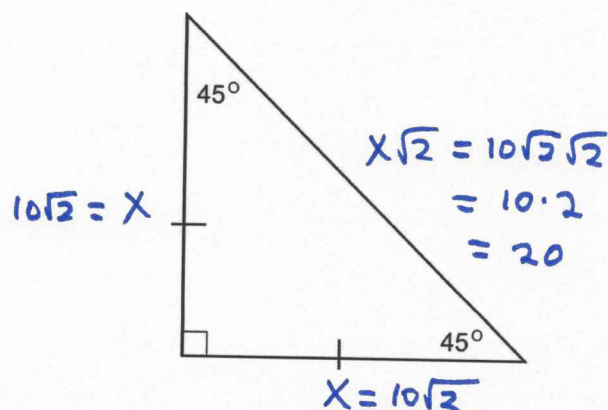
38. Given the special triangle below with  $6\sqrt{2}$  as its hypotenuse length, find the lengths of the other two sides.



39. Given the special triangle below with  $8\sqrt{3}$  as its hypotenuse length, find the lengths of the other two sides.



40. Given the special triangle below with  $10\sqrt{2}$  as its leg length, find the lengths of the other two sides.



41. Evaluate the trigonometric expression  $\sin \frac{\pi}{3} = \frac{\sqrt{3}}{2}$

42. Evaluate the trigonometric expression  $\cos 60^\circ = \frac{1}{2}$

43. Evaluate the trigonometric expression  $\tan \frac{\pi}{6} = \frac{\sqrt{3}}{3}$

44. Evaluate the trigonometric expression  $\sin 315^\circ = -\frac{\sqrt{2}}{2}$

45. Evaluate the trigonometric expression  $\cos \frac{7\pi}{6} = -\frac{\sqrt{3}}{2}$

46. Evaluate the trigonometric expression  $\tan 330^\circ = -\frac{\sqrt{3}}{3}$

47. Evaluate the trigonometric expression  $\sin \frac{2\pi}{3} = \frac{\sqrt{3}}{2}$

48. Evaluate the trigonometric expression  $\cos 225^\circ = -\frac{\sqrt{2}}{2}$

49. Evaluate the trigonometric expression  $\tan \pi = 0$

50. Evaluate the trigonometric expression  $\sin 360^\circ = 0$

51. Evaluate the trigonometric expression  $\cos \frac{\pi}{2} = 0$

52. Evaluate the trigonometric expression  $\tan \frac{3\pi}{4} = -1$

53. Evaluate the trigonometric expression  $\sin 2\pi = 0$